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STATEMENT BY APPLICANT**

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Sheet

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of

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**Complete if Known**

Application Number	10/053,348
Filing Date	November 2, 2001
First Named Inventor	Rosenthal, Dan E.
Art Unit	2123
Examiner Name	Unassigned
Attorney Docket Number	020910-000310US

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JF		ABAGYAN, et al., "New Methodology for Computer-Aided Modelling of Biomolecular Structure and Dynamics 2. Local Deformation Cycles", 1989, <u>Journal of Biomolecular Structure &amp; Dynamics</u> 6(4):833-845.	
		GIBSON, et al., "Variable Step Molecular Dynamics: An Exploratory Technique for Peptides with Fixed Geometry", 1990, <u>Journal of Computational Chemistry</u> 11(4):468-486.	
		JAIN, et al., "Linearization of Manipulator Dynamics Using Spatial Operators", 1993, <u>IEEE Transactions on Systems, Man and Cybernetics</u> 23(1):239-248.	
		LUDOVICE, et al., "Molecular dynamics of geometrically constrained polymer systems in generalized coordinates: Basic formalism", 1991, <u>Computational Polymer Science</u> 1:69-79.	
		MAZUR, et al., "New Methodology for Computer-Aided Modelling of Biomolecular Structure and Dynamics 1. Non-Cyclic Structures", 1989, <u>Journal of Biomolecular Structure &amp; Dynamics</u> 6(4):815-832.	
		PESKIN, ET AL., "Molecular Dynamics by the Backward-Euler Method", 1989, <u>Communications on Pure and Applied Mathematics</u> XLII:1011-1031.	
		ROSENTHAL, et al., "High Performance Multibody Simulations via Symbolic Equation Manipulation and Kane's Method", 1986, <u>The Journal of the Astronautical Sciences</u> , 34(3):223-239.	
		ROSENTHAL, "An Order n Formulation for Robotic Systems", 1990, <u>The Journal of the Astronautical Sciences</u> , 38(4):511-529.	
		ROSENTHAL, "Engineers Notes: Triangulation of Equations of Motion for Robotic Systems", 1988, <u>The Journal of Guidance</u> , 11(3):278-281.	
		SCHLICK, et al., "A molecular dynamics simulation of a water droplet by the implicit Euler/Langevin scheme", 1991, <u>J. Chem. Phys.</u> , 94(3):2118-2129.	
JF		ZHANG, et al., "The Langevin/implicit-Euler/normal-mode scheme for molecular dynamics at large timesteps", 1994, <u>J. Chem. Phys.</u> , 101(6):4995-5012.	

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Sheet	1	of	3	Attorney Docket Number	020910-000310US

U.S. PATENT DOCUMENTS					
Examiner	Cite No. <sup>1</sup>	Document Number Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
JFR	AA	US 6,512,997	1/28/2003	Padilla, et al.	
	AB	US 6,185,506	2/6/2001	Cramer, III, et al.	
	AC	US 6,161,080	12/12/2000	Aouni-Ateshian, et al.	
	AD	US 6,125,235	9/26/2000	Padilla, et al.	
	AE	US 6,081,766	6/27/2000	Chapman, et al.	
	AF	US 6,014,449	1/11/2000	Jacobs, et al.	
	AG	US 5,787,279	7/28/1998	Rigoutsos	
	AH	US 5,777,889	7/7/1998	Mohanty, et al.	
	AI	US 5,752,019	5/12/1998	Rigoutsos, et al.	
	AJ	US 5,745,385	4/28/1998	Hinsberg, III, et al.	
	AK	US 5,625,575	4/29/1997	Goyal, et al.	
	AL	US 5,553,004	9/3/1996	Gronbech-Jensen, et al.	
JFR	AM	US 5,307,287	4/26/1994	Cramer, III, et al.	

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		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
JFR	AN	WO	02/073334	A2	07-26-1990	Padilla, et al.		<input type="checkbox"/>
JFR	AO	WO	01/67310	A1	12-12-1991	Smith, et al.		<input type="checkbox"/>
JFR	AP	WO	96/24902	A1	04-01-1993	Wertz		<input type="checkbox"/>

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JFR	AQ	ASCHER, et al., <u>Computer Methods for Ordinary Differential Equations and Differential-Algebraic Equations</u> , 1998, pgs. 3-122 and 231-297, SIAM, Philadelphia, PA.	
JFR	AR	BARAFF, et al., " <u>Large steps in cloth simulation</u> ", 1998, <u>Computer Graphics Proceedings SIGGRAPH 98</u> (Orlando, July 19-24) p43.pdf	
JFR	AS	BARTH, et al., " <u>A separating framework for increasing the timestep in molecular dynamics</u> " in <u>Computer Simulation of Biomolecular Systems - Theoretical and Experimental Applications, Volume 3</u> , 1997, pgs. 97-121, Kluwer Academic Dordrecht, The Netherlands.	
Examiner Signature			Date Considered 4/28/2005

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 2 of 3

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JP	AT	BERENDSEN, "Molecular Dynamics Simulations: The Limits and Beyond" in <u>Computational Molecular Dynamics: Challenges, Methods, Ideas</u> , 1999, pgs. 3-36, Springer-Verlag, Germany.	
	AU	BISCHOF, et al., <u>ADIFOR 2.0 Users' Guide</u> , 1998, Argonne National Laboratory, University of Chicago, Argonne, IL.	
	AV	BRENAN, et al., <u>Numerical Solution of Initial-Value Problems in Differential-Algebraic Equations</u> , 1989, Chapter 5 (pgs. 115-148), Elsevier Science Publishing Co., New York, NY.	
	AW	BUTCHER, "Towards efficient implementation of singly-implicit methods", 1988, <u>AMC Transactions of Mathematical Software</u> 14:68-75.	
	AX	BYSTROFF, "An alternative derivation of the equations of motion in torsion space for a branched linear chain", 2001, <u>Protein Engineering</u> 14:825-828.	
	AY	COLEMAN, et al., "The efficient computation of sparse Jacobian matrices using automatic differentiation", 1996, <u>Cornell Theory Center Technical Report CTC95TR225</u> .	
	AZ	EICHBERGER, et al., "The benefits of parallel multibody simulation", 1994, <u>International Journal for Numerical Methods in Engineering</u> , 37:1557-1572.	
	BA	GOLUB, et al., "The Differentiation of Pseudo-Inverses and Non-Linear Least Squares Problems Whose Variables Separate", 1973, <u>SIAM J. Numer. Anal.</u> 10:413.	
	BB	HAIRER, et al., <u>Solving Ordinary Differential Equations II: Stiff and Differential-Algebraic Problems</u> , 2nd ed., 1996, Springer-Verlag, Germany.	
	BC	HE, et al., "Macromolecular conformational dynamics in torsional angle space", 1998, <u>Journal of Chemical Physics</u> 108:271.	
	BD	HOLLARS, et al., <u>SD/FAST User's Manual, Version B.2</u> , 1994, Symbolic Dynamics, California.	
	BE	IZAGUIRRE, et al., "Longer Time Steps for Molecular Dynamics", 1999, <u>J.Chem.Phys.</u> 110:9853.	
	BF	KANE, <u>Dynamics</u> , 3rd ed., 1978, Stanford University, Stanford, California.	
JP	BG	LEACH, <u>Molecular Modelling Principles and Applications</u> , 2nd ed., 1996, Chapter 6 (pgs. 303-352) Pearson Education Limited, England.	

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JEP	BH	MARTINS, et al., "An automated method for sensitivity analysis using complex variables", 2000, <u>American Institute of Aeronautics and Astronautics</u> , 2000-0689 p1	
	BI	NORSETT, et al., "Embedded SDIRK-methods of basic order three", 1984, <u>BIT</u> 24:634-646.	
	BJ	PONDER, <u>TINKER User's Guide</u> , Version 3.8, October 2000, Washington University, St. Louis, MO.	
	BK	RAPAPORT, <u>The Art of Molecular Dynamics Simulation</u> , 1995, reprinted with corrections 1998, Chapter 3 (pgs. 42-77), Cambridge University Press, United Kingdom.	
	BL	SCHLICK, "Biomolecular Dynamics at Long Timesteps: Bridging the Timescale Gap Between Simulation and Experimentation", 1997, <u>Annu. Rev. Biophys. Biomol. Struct.</u> , 26:181-222.	
	BM	SCHLICK, "Some Failures and Successes of Long-Timestep Approaches to Biomolecular Simulations" in <u>Computational Molecular Dynamics: Challenges, Methods, Ideas</u> , 1999, pgs. 227-262, Springer-Verlag, Germany.	
	BN	SCHLICK, <u>Molecular Modeling and Simulation - An Interdisciplinary Guide</u> , 2002, Chapter 13 and References, pgs. 419-462 and 561-619, Springer-Verlag, Germany.	
	BO	SHAMPINE, "Implementation of implicit formulas for the solution of ODEs", 1980, <u>SIAM J. Sci. Stat. Comput.</u> 1:103-118.	
	BP	VERLET, "Computer Experiments on Classical Fluids. I. Thermodynamical Properties of Lennard-Jones Molecules", 1967, <u>Physical Review</u> , 159(1):98-103.	
	BQ	VON SCHWERIN, <u>Multibody System Simulation</u> , 1999, Springer-Verlag, Germany.	
	BR	WU, et al., "Constraint dynamics algorithm for simulation of semiflexible macromolecules", 1998, <u>Journal of Computational Chemistry</u> 19:1555-1566	
JEP	BS	YEN, et al., "On the numerical solution of constrained multibody dynamic systems", 1994, <u>University of Minnesota AHPCRC</u> 94-038.	

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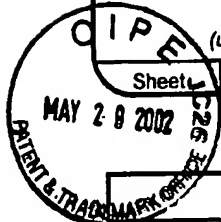
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JSL	AC	LEUNG et al., "Concurrent DASSL: A Second-Generation DAE Solver Library," <u>IEEE Proceedings of Scalable Libraries Conference</u> , from conference held 10/6-8/93 at Syracuse University, New York, NY, pgs. 204-210.	
JSL	AD	ABDEL-RAHMAN et al., "Determination of the Ligamentous and Contact Forces in the Human Tibio - Femoral Joint Using a Three - Dimensional Dynamic Anatomical Model," <u>IEEE Proceedings of Biomedical Engineering Conference</u> , from conference held 3/29-31/96 in Dayton Ohio, pgs. 373-376.	

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